

Amendments to the Claims

1-16. (Cancelled)

17. (Previously presented) A routing device operable to selectively bridge Ethernet frames related to a Point-to-Point Protocol over Ethernet (PPPoE) connection, the routing device comprising:

a processor;

memory;

computer instructions stored in the memory and executable by the processor to perform the functions including:

receiving an Ethernet frame from a first terminal, the Ethernet frame comprising an Ether_Type field and a destination address;

storing the Ethernet frame in the memory;

locating the Ether_Type field in the Ethernet frame;

determining whether the Ether_Type field includes a discovery code or a session code identifying status of a PPPoE connection, wherein the Ether_Type field including the discovery code or the session code indicates that the Ethernet frame is related to the PPPoE connection;

in response to a determination that the Ether_Type field includes the discovery code or the session code, bridging the Ethernet frame to a second terminal engaged in the PPPoE connection, the destination address of the Ethernet frame addressing the second terminal; and

in response to a determination that that the Ether_Type field does not include the discovery code or the session code, routing the Ethernet frame to the second terminal.

18. (Previously presented) The routing device of claim 17, wherein the destination address of the Ethernet frame is a MAC sub-layer address.

19-23. (Cancelled)

24. (Currently amended) In a routing device, a method for selectively bridging Ethernet frames related to a Point-to-Point Protocol over Ethernet (PPPoE) connection, the method comprising:

receiving an Ethernet frame from a first terminal, the Ethernet frame comprising an Ether_Type field and a destination address;

storing the Ethernet frame in ~~[[the]]~~ a memory;

locating the Ether_Type field in the Ethernet frame;

determining whether the Ether_Type field includes a discovery code or a session code identifying status of a PPPoE connection, wherein the Ether_Type field including the discovery code or the session code indicates that the Ethernet frame is related to the PPPoE connection;

in response to a determination that the Ether_Type field includes the discovery code or the session code, bridging the Ethernet frame to a second terminal engaged in the

PPPoE connection, the destination address of the Ethernet frame addressing the second terminal; and

in response to a determination that that the Ether_Type field does not include the discovery code or the session code, routing the Ethernet frame to the second terminal.

25-29. (Cancelled)